



NASA Occupations Chat Lesson



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NASA Occupations Chat

Adapted from NASA Quest Teacher Tips by Christina O'Guinn and Susanne Ashby

For more in-depth career education curriculum and fact sheets on NASA scientists, visit the [Astro-Venture Career Guidance Center](#)

Objectives

- Students will reflect on the occupations held by the person(s) with whom they chatted and will decide whether the occupation matches their interests, skills or values.
- Students will identify the occupation that they feel best fits their interests and abilities, the reasons why, the necessary skills and the education required for such a position.

Major Concepts

- Obtaining the career you desire is done by making choices about your education, activities and jobs you pursue.
- When choosing an occupation, its important to find one that matches your skills, interests and values.

Supplies

- [Self-Evaluation Worksheet](#)
- [Chat Question Generator](#)
- [Occupations Reflection Sheet](#)
- [Chat Rules and Netiquette](#)
- [Chat Debrief](#)

Equipment

- overhead projector, blackboard or chart paper
- computers with Internet browser and connection

Optional Equipment

- LCD panel or TV monitor connected to a computer with a video card
- e-mail account

Facilities

- classroom
- computer lab (optional)



Preparation

- Run class sets of [Chat Question Generator](#) and [Chat Debrief](#).
- Preview NASA Web sites to make sure they work and are appropriate for your students.
- Locate the Web sites that show the biographies, fact sheets, journals or other background information on the people hosting the chat.
- Make an overhead transparency of [Chat Rules and Netiquette](#).
- Run a class set of [Occupations Reflection Sheet](#).
- Run a class set of [Self-Evaluation Worksheet](#).
- If you are participating in a Webcast (streaming audio and video), follow the directions for [Downloading RealPlayer](#).
- Follow the directions for [Testing the Webcast Software](#) after it has been downloaded
- Note: Many districts have "blocks" to all chat lines on the Internet. Exploration of the Web site will help determine unexpected "blocks" of Quest sites because of supposed access to "on-line chatting that does not adequately screen out offensive language." If a block is found, it is up to the teacher to attempt to get the site(s) unblocked. Follow your district's guidelines for "unblocking" a Web site.
- Check the [Schedule of Events](#) to determine when the chat is scheduled and if youzÓclass can attend at that time.
- Register for the chat on the Quest Web site
- Locate the resources relevant to the event found next to the chat on [Schedule of Events](#). These resources can include career fact sheets, biographies, journals and archived chats. Print out copies of these resources for your students, if they won't be able to access them on the computer.
- Create a classroom display board announcing when the chat will take place with excerpts from the NASA expert's resources. After the class determines their top ten questions for the NASA expert, post these also.

Schedule

1 to 3 45-minute class periods

- * Suggestion: This lesson is a good one to use after having students complete the NASA Occupations Research lesson contained in the [Astro-Venture Occupation Lessons](#).

Engage

- Discuss the meaning of occupation and career.
- **occupation**. The activity that a person does as their regular work. A job.
- **career**. The order of events that occur in a person's work, over time.



- Ask students how they know if an occupation is a good one for them. (For the purposes of this activity, focus the discussion on the importance of being interested in the work and the common activities of a job.)
- Ask students what kinds of occupations they think might be available at NASA.

Explore

- Have students list their interests and skills on the [Self-Evaluation Worksheet](#). Discuss with students the difference between liking an activity and being good at it. How do they know if they are good at something? (It might be easy for them. They achieve good grades in it.) Ask them if there is something they really like but that they have to work hard at in order to do well. This would be an example of something that they like but aren't that good at.
- Have students read the resources for the experts hosting the chat found on [Schedule of Events](#) and use the [Chat Question Generator](#) to generate questions for the expert to answer about their research and occupations.
- Have students work in groups of three to five to share their questions and decide on the best five questions for the group. They should write these questions on the blackboard or on butcher paper, so that the class can see all of the questions.
- Next, as a class have the students group together the questions that deal with a similar topic.
- As a class have the students determine three to five broad categories for the questions.
- Then, have each group synthesize and combine the questions where appropriate. This will shorten the list of questions.
- Post and read. Then have the class decide upon the "Top 10 Questions" that they want to ask the NASA expert.
- These then become the questions to be submitted either before the chat begins or during the chat.
- Note: Keep the "second-string" questions handy. If the chat is not too busy, the Chat moderator may invite other questions to be fed into the room.

Explain

- Go over [Chat Rules and Netiquette](#) with the class.
- If your class cannot be available for the live chat, submit your questions beforehand.
- When submitting your questions include the student's first name followed by the school's name (Susanne/Cawthon School).
- If your class is available to experience the chat live, log on about 5 minutes before the scheduled start time.



Logistical Suggestions:

- *Computer lab/ multiple Internet-ready computers:* If you have multiple computers in the classroom with Internet connection and Web browsers, you may want to let students observe the chat or have a few different students register and submit questions.
- *One Internet-ready computer with LCD or TV monitor connection:* If you have only one computer that can be displayed for the class using LCD or a TV monitor connected to a video card in the computer, you can have students ask their questions and then designate one person to type the questions, or have students to take turns submitting questions. It is also possible to submit your questions and then check the archive later to see how your questions were answered.
- Have your class make a courteous and brief introduction when presenting their first question. Both the chat moderator and the expert can then refer to this when your additional questions appear.
- To engage students during the flow of the chat have them prepare possible follow-up questions that relate to an answer given by the expert (either a question to further clarify an answer given or a question that relates in some way to an answer).
- Have the students decide which of their top ten questions to ask next based upon the flow of the chat.
- At the chat's conclusion have the students thank the expert and acknowledge the moderator
- Before logging off, have the class collectively complete the on-line Chat Evaluation.

Extend/ Apply

- Using the [Chat Debrief](#), have students write a description of the occupations of the people with whom they chatted.
- Have students evaluate their opinions of the occupations of those hosting the chat and their reasons for liking or disliking these occupations.
- Use the [Chat Debrief](#) to facilitate the follow-up discussion. Have your discussion include the following considerations:
 - new insights
 - connection between school subjects and work in the "real world"
 - steps one might need to take to prepare for such a job
 - strengths one might have to do this type of work
 - skills one might need to acquire to do this type of work
- Have students write a description of a NASA occupation they would like to have.

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Evaluate

Have students complete the [Occupations Reflection Sheet](#). Assess whether students have a good understanding of NASA occupations, the requirements for these occupations and that they choose occupations that fit their interests, skills and values.

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Self-Evaluation Worksheet

Name: _____

Directions: Think about and mark the things that you like, are skilled in and that are important to you. These are things you want to consider when selecting an occupation.

Activities	Interests (I really like these things.)	Skills (These things are easy for me.)
Example: reading	√	
Language arts:		
writing stories		
writing reports		
reading		
Math:		
solving problems		
making graphs		
working on the computer		
designing a machine		
doing puzzles		
reasoning and logic		
paying attention to patterns and details		
Art:		
drawing		
painting		
designing buildings or gardens		
creating pictures or multimedia on the computer		

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Self-Evaluation Worksheet (Page 2 of 5)

Activities	Interests (I really like these things.)	Skills (These things are easy for me.)
Science:		
solving mysteries		
learning about the Earth		
learning about weather		
learning about animals, plants and humans		
learning about space		
learning about forces and energy		
learning about how machines work		
Social Studies:		
leading and persuading people		
learning about different cultures		
learning about different languages		
learning about history		
learning about how government works		
learning about law		
learning about economics		
learning about different languages		
PE		
playing sports		
coaching sports		
exercising		



Self-Evaluation Worksheet (Page 3 of 5)

Activities	Interests (I really like these things.)	Skills (These things are easy for me.)
Performing:		
writing music		
performing music		
dancing		
acting for an audience		
speaking before an audience		
Working with ideas data and information:		
researching		
organizing things		
keeping records		
remembering things		
planning step-by-step		
using my imagination		
finding answers to questions		
coming up with ideas		
being creative		
Working with things:		
using tools or machines		
building things		
washing cleaning or preparing		
putting things together		
growing things		



Self-Evaluation Worksheet (Page 4 of 5)

Activities	Interests (I really like these things.)	Skills (These things are easy for me.)
working with the computer		
figuring out how things work		
Working with people:		
leading a team		
teaching or giving information		
helping others		
following instructions		
talking to people		
working with others		
persuading people		
solving problems between people		
leading group discussions		
being in charge of a project		
Other:		
getting things done		
doing detailed work		
learning new things		
working at a problem until I find a solution		
making decisions		
working hard to reach goals		



Self-Evaluation Worksheet (Page 5 of 5)

I work best with:

- ☐ quiet
- ☐ the radio on
- ☐ just myself
- ☐ lots of other people
- ☐ a small group
- ☐ children
- ☐ older people
- ☐ people just like me
- ☐ people different from me
- ☐ animals
- ☐ people who need my help
- ☐ words and books
- ☐ computer programs
- ☐ numbers
- ☐ building materials
- ☐ art materials

What's most important to you?

Put a " 1" next to the most important, a " 2" next to the second most important and so on.

- ☐ Liking my job
- ☐ Making money
- ☐ Having time to spend with my family
- ☐ Having a job where I help people
- ☐ Being famous or powerful
- ☐ Having a job that's physically safe
- ☐ Having a job that is secure
(that I won't lose easily)
- ☐ Having a job with good insurance,
vacation, retirement, stocks, etc.
- ☐ Being recognized for my work

I like to:

- ☐ travel a lot
- ☐ travel once in a while
- ☐ be outdoors all of the time
- ☐ be outdoors some of the time
- ☐ be indoors all of the time

How much education or training do you want to have?

- ☐ Attend high school
- ☐ Graduate from high school
- ☐ Attend a vocational-technical school (that trains me for a specific job, such as beauty school, police academy, etc.)
- ☐ Attend a two-year community college
- ☐ Attend a four-year college or university for four years to earn a bachelor's degree
- ☐ Attend a university for two years after a bachelor's to earn a master's degree
- ☐ Attend a university for five or more years after a bachelor's to earn a Ph.D.
- ☐ Attend a professional school (medical, dental, law)



Chat Question Generator

Name: _____

Directions:

- Read the resources of the people who will be hosting the chat found under [Schedule of Events](#) (These resources may include career fact sheets, biographies, journals, archived chats).
- List the expert's name, job title and description of what they do. (This information can be found in the resources listed for the expert on the [Schedule of Events](#).)
- Based on the information given in the expert's resources, list at least five informed questions you would like to have answered during the chat. Your questions must comply with the following criteria:
 - the answer to the question cannot be found in the readings
 - the question cannot be answered by a simple "yes" or "no"
 - the question can be answered with a brief explanation
 - the question relates to the expert's work

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Name	Job Title/Description	Questions



Chat Rules and Netiquette

1. Be polite. Limit your questions, so that NASA people can respond to everyone.
2. Offensive language, including sexual innuendo, is not allowed.
3. Keep questions focused on topics related to the scientist or engineer's background and area of expertise.
4. It is recommended that students not give identifying information about themselves such as last name, address, phone number, etc.
5. **DON'T TYPE IN ALL CAPS!** On the Internet, this means that you are screaming. (It's not polite to scream at our guests).
6. Enjoy! Learn something new!



Chat Debrief

Name: _____

Directions:

Think about the questions that were asked and the answers that were given. Below, record five new pieces of information you learned.

We chatted with _____

I learned the following things:

1.

2.

3.

4.

5.

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Chat Debrief

(continued)

Directions: Answer the questions below.

1. Would you like to have a career in this field? Explain why or why not.

2. Based upon what was discussed in the chat, compose 3 additional questions you still have about the kind of work this expert does.

A)

B)

C)

In what way are you like this expert?

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Occupations Reflection Sheet

Name: _____

Directions: After participating in a chat or Web activity, evaluate the NASA occupation you met or role-played.

Occupation Title	What I like about this occupation is...	What I don't like about this occupation is...	Matches List any skills, interests or values that you have that match this job.

If I could have any of these occupations, I would be a _____, because _____

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